[INCH–POUND]
A–A–59590/14C
14 June 2015
SUPERSEDING
A–A–59590/14B
14 November 2010

COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

HOLDER, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE, SCREW ACTUATED DRIVE, .375 X .375 INCH BODY SIZE, WEDGE MOUNTING BODY, WITH VISUAL LOCK INDICATION

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

The complete requirements for procuring electrical card holders described herein shall consist of this document and the latest issue in effect of A–A–59590.

CLASSIFICATION/PART IDENTIFICATION NUMBER (PIN). This commercial item description (CID) specification sheet uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see notes herein).

AA59590	/14	B, C, H, R	*	* *	W, D, E
CID number	Applicable CID specification sheet	Finish	Mounting	Length (see table I)	Configuration (see table II)

Example: AA59590/14CV38E is the PIN for a chemical film finished, 3.8 inch (96.5 mm) long visual lock indicating card holder. The card holder also features two tapped mounting holes for use with 0–80 UNF fasteners and a self-locking element on the end of the actuating screw for added resistance to loosening.

SALIENT CHARACTERISTICS.

Performance. Card holders shall hold the circuit card assembly firmly in its installed position. When the card holder is installed properly, it is capable of withstanding 60g/6ms of shock, 25 G–rms of vibration, and provides from 2 to 4 degrees C/W/inch thermal resistance transfer between the circuit card assembly and the heat sink surfaces.

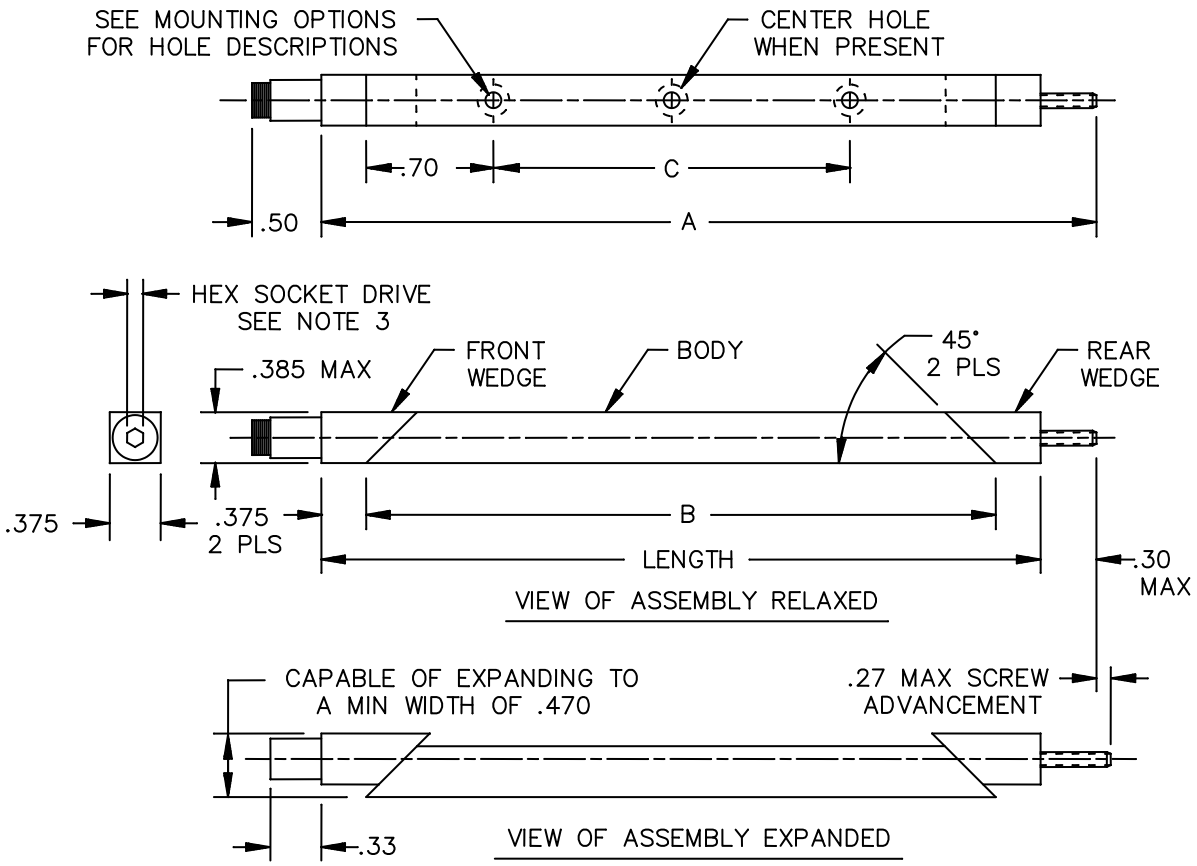
Material. Unless otherwise specified herein, the card holder materials shall be as specified in A–A–59590.

Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified on figures 1, 2, 3, and 4, in table I, and A–A–59590.

Visual lock indicator (see figure 2). Card holders shall have a visual indicator to show when the card holder is in its relaxed (unlocked) state. When the card holder is in the unlocked (relaxed) state, the actuating end of the screw shall display a red band on the side of the screw. When the actuating screw on the card holder has been tightened (assembly expanded) so that the assembly is in the locked position, this red band shall be concealed.

Actuating screw hex drive socket. The across flats dimension for the hex drive socket shall be as follows: .140 inch (3.56 mm) for mounting options "J", "N", "T", "R", "V", and "S" and 3.0 mm (0.118 inch) for mounting options "G" and "M".

Nominal installation torque. When card holders are used in cold plate applications, the nominal installation torque of each card holder shall be as follows: 16 to 20 inch-pounds (1.8 to 2.3 N-m) for assemblies using no options or configuration "W" and 17 to 21 inch-pounds (1.9 to 2.5 N-m) for assemblies of configurations "E" or "D".



Inches	mm	Inches	mm	Inches	mm	Inches	mm
.20	5.1	.33	8.4	.385	9.8	.50	12.7
.27	6.9	.375	9.5	.470	11.9	.70	17.8

NOTES:

1. Dimensions are in inches. Millimeters are given for general information only.
2. Unless otherwise specified, tolerances are ±.02 inch (0.51 mm) for two place decimals and ±.010 inch (0.25 mm) for three place decimals.
3. The across flats dimension for hex drive socket shall be .140 inch (3.56 mm) for mounting options "J", "N", "R", "T", "S", and "V". The across flats dimension for hex drive socket shall be a metric dimension of 3.0 mm (0.118 inch) across flats for mounting option "G" and "M".

FIGURE 1. Relaxed and expanded dimensions.

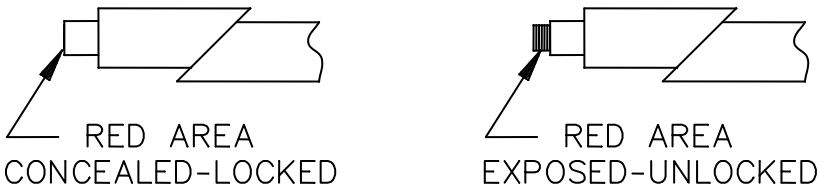


FIGURE 2. Visual lock indicator.

Cold plate slot width dimensions (when applicable). The recommended cold plate slot width to accommodate the circuit card assembly with attached card holder is .425 inch (10.80 mm) plus the thickness of the printed board of the circuit card assembly (see A–A–59590).

Finish. The finish designator shall be as specified in A–A–59590. The finishes available for this CID specification sheet are as follows: "B" (black anodize), "C" (gold chemical film), "H" (hard black anodize), or "R" (clear chemical film).

Mounting. The mounting designators shall be as specified in A–A–59590. The mounting options available for this CID specification sheet are as follows: "J" (rivet mounting holes), "N" (no mounting holes), "T" or "R" (tapped 0–80 UNF 2B holes), "V" or "S" (tapped 2–56 UNC 2B holes), or "G" or "M" (tapped M2.5 x.45 metric holes). Card holders using mounting option "J" may be shipped unassembled. See figure 1 for mounting hole spacing requirements.

Mounting hole locations (when required). When mounting holes are specified in the PIN, two mounting holes are required on card holders less than 5.30 inches (134.6 mm) in length. Three mounting holes may be present on card holders greater than 5.30 inches (134.6 mm) in length. The third mounting hole, when present, shall be centered on the mounting body. See figure 1 and table I and for mounting hole locations and spacing requirements.

Rivet mounting holes. The holes used for rivet mounting shall be .136 inch (3.45 mm) diameter through holes, countersunk 100 degrees by .190 to .200 inch (4.83 to 5.08 mm) diameter with an access/clearance counterbore hole of .190 to .200 inch (4.83 to 5.08 mm) diameter by .300 inch (7.62 mm) deep.

Rivets. This card holder uses rivet style B as specified in A–A–59590 when rivet mounting is used.

Length, expanded, and relaxed dimensions. The length, expanded, and relaxed dimensions shall be as specified on figure 1. The length designator shall be as specified in A–A–59590 and the available lengths for this specification sheet are listed in table I.

TABLE I. Assembly dimensions (see figure 1). 1/

PIN length designator	Dimension "LENGTH" ±.02 (0.5)	Dimension "A" (maximum)	Dimension "B" ±.03 (0.8)	Dimension "C" ±.005 (0.13)
28	2.8 (71.1)	3.30 (83.8)	2.05 (52.1)	.65 (16.5)
33	3.3 (83.8)	3.80 (96.5)	2.55 (64.8)	1.15 (29.2)
38	3.8 (96.5)	4.30 (109.2)	3.05 (77.5)	1.65 (41.9)
43	4.3 (109.2)	4.80 (121.9)	3.55 (90.2)	2.15 (54.6)
48	4.8 (121.9)	5.30 (134.6)	4.05 (102.9)	2.65 (67.3)
53	5.3 (134.6)	5.80 (147.3)	4.55 (115.6)	3.15 (80.0)
58	5.8 (147.3)	6.30 (160.0)	5.05 (128.3)	3.65 (92.7)

1/ Dimensions are in inches. Millimeters, in parenthesis, are given for information only.

Configuration. The configuration of a card holder shall be as specified in table II. The details of a particular configuration consist of those on figures 1 and 2, and may include those on figures 3 and 4. Card holders not requiring the options described by table II shall leave the configuration position in the PIN blank.

TABLE II. Configurations.

Configuration	Applicable figures	Hardware options
---	1 and 2	No added options
W	1, 2, and 3	Lockwasher and flat washer
E	1, 2, and 4	Screw self-locking element
D	1, 2, 3, and 4	Lockwasher, flat washer and screw self-locking element

Lockwasher and flat washer (see figure 3). A lockwasher and flat washer located under the screw head will provide for additional resistance to loosening of the card holder assembly from shock and vibration. Card holders requiring a lockwasher and flat washer shall include a suffix "W" in the PIN (see classification and notes).

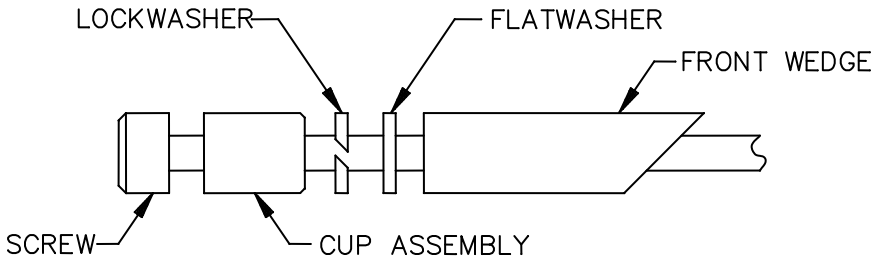


FIGURE 3. Lockwasher and flat washer details.

Screw self-locking element (see figure 4). The use of a screw self-locking element will provide prevailing torque for resistance to loosening from shock and vibration. The screw self-locking element shall be as specified in A–A–59590. Card holders requiring a screw self-locking element shall include a suffix "E" in the PIN (see classification and notes).

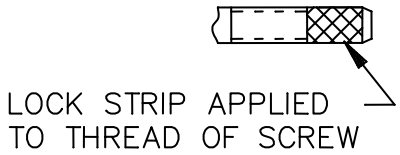


FIGURE 4. Screw self-locking element details.

Lockwasher, flat washer, and screw self-locking element. Card holders requiring a lockwasher, flat washer, and screw self-locking element configuration shall include a suffix "D" in the PIN (see classification and notes).

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Source of documents.

Commercial Item Description

A–A–59590	–	Holder, Electrical Card, Wedge Retainers, 3 Piece, Screw Actuated Drive, General Requirements For.

(Copies of these documents are available online at http://quicksearch.dla.mil).

Ordering data. Ordering data shall be as specified in A–A–59590.

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of preparation and coordination of this CID specification sheet, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

Manufacturer CAGE	Manufacturer name and address	Manufacturer contact information
61081 (1)	Schroff Division of Pentair Equipment and Electronic Protection (formerly Birtcher) 7328 Trade Street San Diego, CA 92121–3410	Telephone: (858) 740–2400 Toll Free: (800) 854–7086 Facsimile: (858) 740–2430 E-mail: schroff.us@pentair.com URL: http://www.pentairprotect.com
61081 (2)	Schroff Division of Pentair Equipment and Electronic Protection (formerly Calmark) 7328 Trade Street San Diego, CA 92121–3410	Telephone: (858) 740–2400 Toll Free: (800) 854–7086 Facsimile: (858) 740–2430 E-mail: schroff.us@pentair.com URL: http://www.pentairprotect.com
5BG68	American Circuit Card Retainers, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806–1231	Telephone: (714) 738–6194 Facsimile: (714) 446–0119 E-mail: sales@accrmfg.com URL: www.accrmfg.com

Part number supersession data. This CID specification sheet PINS supersedes the following manufacturer's part numbers as shown in table III. The CID PINs listed in table III are only for length designator "28". See table IV for CID PIN construction using other available lengths for this specification sheet. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE III. Commercial part number supersession data.

PIN designator AA59590/14	Vendor similar designator or type part number 1/		
	CAGE 61081 2/	CAGE 61081 3/	CAGE 5BG68
BJ28	44VI–6–B	VA250–2.80H	3370VBA–2.80H
BN28	44VI–6–B–A	VA250–2.80	3370VBA–2.80
BT28	44VI–6–B–T	VA250–2.80T0	3370VBA–2.80T0
BV28	44VI–6–B–S	VA250–2.80T2	3370VBA–2.80T2
BG28	44VI–6–B–M	MVA250–2.80TM2.5	3370MVBA–2.80TM2.5
BJ28E	44VI–6–B–L	VA250–2.80HL	3370VBA–2.80HL
BN28E	44VI–6–B–A–L	VA250–2.80L	3370VBA–2.80L
BT28E	44VI–6–B–T–L	VA250–2.80T0L	3370VBA–2.80T0L
BV28E	44VI–6–B–S–L	VA250–2.80T2L	3370VBA–2.80T2L
BG28E	44VI–6–B–M–L	MVA250–2.80TM2.5L	3370MVBA–2.80TM2.5L
BJ28W	44VI–6–B–LF	WVA250–2.80H	3370VWBA–2.80H
BN28W	44VI–6–B–LF–A	WVA250–2.80	3370VWBA–2.80
BT28W	44VI–6–B–LF–T	WVA250–2.80T0	3370VWBA–2.80T0
BV28W	44VI–6–B–LF–S	WVA250–2.80T2	3370VWBA–2.80T2
BG28W	44VI–6–B–LF–M	MWVA250–2.80TM2.5	3370MVWBA–2.80TM2.5
BJ28D	44VI–6–B–LF–L	WVA250–2.80HL	3370VWBA–2.80HL
BN28D	44VI–6–B–LF–AL	WVA250–2.80L	3370VWBA–2.80L
BT28D	44VI–6–B–LF–TL	WVA250–2.80T0L	3370VWBA–2.80T0L
BV28D	44VI–6–B–LF–SL	WVA250–2.80T2L	3370VWBA–2.80T2L
BG28D	44VI–6–B–LF–ML	MWVA250–2.80TM2.5L	3370MVWBA–2.80TM2.5L
CJ28	44VI–6	V250–2.80H	3370VCG–2.80H
CN28	44VI–6–A	V250–2.80	3370VCG–2.80
CT28	44VI–6–T	V250–2.80T0	3370VCG–2.80T0
CV28	44VI–6–S	V250–2.80T2	3370VCG–2.80T2
CG28	44VI–6–M	MV250–2.80TM2.5	3370MVCG–2.80TM2.5
CJ28E	44VI–6–L	V250–2.80HL	3370VCG–2.80HL
CN28E	44VI–6–A–L	V250–2.80L	3370VCG–2.80L
CT28E	44VI–6–T–L	V250–2.80T0L	3370VCG–2.80T0L
CV28E	44VI–6–S–L	V250–2.80T2L	3370VCG–2.80T2L
CG28E	44VI–6–M–L	MV250–2.80TM2.5L	3370MVCG–2.80TM2.5L

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/14	Vendor similar designator or type part number 1/		
	CAGE 61081 2/	CAGE 61081 3/	CAGE 5BG68
CJ28W	44VI–6–LF	WV250–2.80H	3370VWCG–2.80H
CN28W	44VI–6–LF–A	WV250–2.80	3370VWCG–2.80
CT28W	44VI–6–LF–T	WV250–2.80T0	3370VWCG–2.80T0
CV28W	44VI–6–LF–S	WV250–2.80T2	3370VWCG–2.80T2
CG28W	44VI–6–LF–M	MWV250–2.80TM2.5	3370MVWCG–2.80TM2.5
CJ28D	44VI–6–LF–L	WV250–2.80HL	3370VWCG–2.80HL
CN28D	44VI–6–LF–A–L	WV250–2.80L	3370VWCG–2.80L
CT28D	44VI–6–LF–T–L	WV250–2.80T0L	3370VWCG–2.80T0L
CV28D	44VI–6–LF–S–L	WV250–2.80T2L	3370VWCG–2.80T2L
CG28D	44VI–6–LF–M–L	MWV250–2.80TM2.5L	3370MVWCG–2.80TM2.5L
HJ28	44VI–6–B3	VHA250–2.80H	3370VBH–2.80H
HN28	44VI–6–B3–A	VHA250–2.80	3370VBH–2.80
HT28	44VI–6–B3–T	VHA250–2.80T0	3370VBH–2.80T0
HV28	44VI–6–B3–S	VHA250–2.80T2	3370VBH–2.80T2
HG28	44VI–6–B3–M	MVHA250–2.80TM2.5	3370MVBH–2.80TM2.5
HJ28E	44VI–6–B3–L	VHA250–2.80HL	3370VBH–2.80HL
HN28E	44VI–6–B3–A–L	VHA250–2.80L	3370VBH–2.80L
HT28E	44VI–6–B3–T–L	VHA250–2.80T0L	3370VBH–2.80T0L
HV28E	44VI–6–B3–S–L	VHA250–2.80T2L	3370VBH–2.80T2L
HG28E	44VI–6–B3–M–L	MVHA250–2.80TM2.5L	3370MVBH–2.80TM2.5L
HJ28W	44VI–6–B3–LF	WVHA250–2.80H	3370VWBH–2.80H
HN28W	44VI–6–B3–LF–A	WVHA250–2.80	3370VWBH–2.80
HT28W	44VI–6–B3–LF–T	WVHA250–2.80T0	3370VWBH–2.80T0
HV28W	44VI–6–B3–LF–S	WVHA250–2.80T2	3370VWBH–2.80T2
HG28W	44VI–6–B3–LF–M	MWVHA250–2.80TM2.5	3370MVWBH–2.80TM2.5
HJ28D	44VI–6–B3–LF–L	WVHA250–2.80HL	3370VWBH–2.80HL
HN28D	44VI–6–B3–LFAL	WVHA250–2.80L	3370VWBH–2.80L
HT28D	44VI–6–B3–LFTL	WVHA250–2.80T0L	3370VWBH–2.80T0L
HV28D	44VI–6–B3–LFSL	WVHA250–2.80T2L	3370VWBH–2.80T2L
HG28D	44VI–6–B3–LFML	MWVHA250–2.80TM2.5L	3370MVWBH–2.80TM2.5L

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/14	Vendor similar designator or type part number 1/		
	CAGE 61081 2/	CAGE 61081 3/	CAGE 5BG68
RJ28	44VI–6–CC	VR250–2.80H	3370VCC–2.80H
RN28	44VI–6–CC–A	VR250–2.80	3370VCC–2.80
RT28	44VI–6–CC–T	VR250–2.80T0	3370VCC–2.80T0
RV28	44VI–6–CC–S	VR250–2.80T2	3370VCC–2.80T2
RG28	44VI–6–CC–M	MVR250–2.80TM2.5	3370MVCC–2.80TM2.5
RJ28E	44VI–6–CC–L	VR250–2.80HL	3370VCC–2.80HL
RN28E	44VI–6–CC–A–L	VR250–2.80L	3370VCC–2.80L
RT28E	44VI–6–CC–T–L	VR250–2.80T0L	3370VCC–2.80T0L
RV28E	44VI–6–CC–S–L	VR250–2.80T2L	3370VCC–2.80T2L
RG28E	44VI–6–CC–M–L	MVR250–2.80TM2.5L	3370MVCC–2.80TM2.5L
RJ28W	44VI–6–CC–LF	WVR250–2.80H	3370VWCC–2.80H
RN28W	44VI–6–CC–LF–A	WVR250–2.80	3370VWCC–2.80
RT28W	44VI–6–CC–LF–T	WVR250–2.80T0	3370VWCC–2.80T0
RV28W	44VI–6–CC–LF–S	WVR250–2.80T2	3370VWCC–2.80T2
RG28W	44VI–6–CC–LF–M	MWVR250–2.80TM2.5	3370MVWCC–2.80TM2.5
RJ28D	44VI–6–CC–LF–L	WVR250–2.80HL	3370VWCC–2.80HL
RN28D	44VI–6–CC–LFAL	WVR250–2.80L	3370VWCC–2.80L
RT28D	44VI–6–CC–LFTL	WVR250–2.80T0L	3370VWCC–2.80T0L
RV28D	44VI–6–CC–LFSL	WVR250–2.80T2L	3370VWCC–2.80T2L
RG28D	44VI–6–CC–LFML	MWVR250–2.80TM2.5L	3370MVWCC–2.80TM2.5L

1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in A–A–59590.
2/ PINs listed are for CAGE 61081 (1).
3/ PINs listed are for CAGE 61081 (2).

PIN length examples. The CID PINs listed in table IV are for all available standard card holder lengths for this specification sheet. However, only one specific finish, mounting and configuration are listed (see PIN example for a break-down of the codes).

TABLE IV. Example of PIN with available length designators.

PIN designator AA59590/14	Vendor similar designator or type part number 1/ 2/		
	CAGE 61081 3/	CAGE 61081 4/	CAGE 5BG68
CV28E	44VI–6–S–L	V250–2.80T2L	3370VCG–2.80T2L
CV33E	44VI–7–S–L	V250–3.30T2L	3370VCG–3.30T2L
CV38E	44VI–8–S–L	V250–3.80T2L	3370VCG–3.80T2L
CV43E	44VI–9–S–L	V250–4.30T2L	3370VCG–4.30T2L
CV48E	44VI–10–S–L	V250–4.80T2L	3370VCG–4.80T2L
CS53E	44VI–11–S–L	V250–5.30ET2L	3370VCG–5.30ET2L
CS58E	44VI–12–S–L	V250–5.80ET2L	3370VCG–5.80ET2L

1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in A–A–59590.
2/ Other lengths are available on request.
3/ PINs listed are for CAGE 61081 (1).
4/ PINs listed are for CAGE 61081 (2).

MILITARY INTERESTS:

Custodians:
Army – CR
Navy – EC
Air Force – 85
DLA – CC

Review Activity:
Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS

Preparing Activity:
DLA – CC

Project 5998–2015–004

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.dla.mil.